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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,275	03/14/2002	Takashi Tagami	NSG-210US	8779

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EXAMINER

KANG, DONGHEE

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,275

Applicant(s)

TAGAMI ET AL.

Examiner

Donghee Kang

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 10-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 10-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims **1-5** are rejected under 35 U.S.C. 102(b) as being anticipated by Russell et al. (US 5,528,071).

Re claims **1-4**, Russell et al. teach a light-receiving element for detecting a light intensity, comprising (Fig.2):

a semiconductor layer (InGaAs) of III-V group compound semiconductor; a first conductivity type of resistor layer (InP:Zn) provided on the top surface of the semiconductor layer; a second conductivity type, opposite to the first conductivity type, of substrate (InP:S) provided on the bottom surface of the semiconductor layer; and at least one pair of opposing electrode (Au-Zn) provided on the resistor layer.

Re claim **5**, Russell et al. do not expressly teach the light-receiving element is operated in N time-divisioned timing matched to the impinging timing of respective demultiplexing lights. However, it is operation function rather than device structure.

Claims directed to apparatus must be distinguished from the prior art in the terms of structure rather than function. In re Danly, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." (emphasis in original) Hewlett-Packard Co.v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **6 & 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakama (US 6,239,891) in view of Russell et al. (US 5,528,071).

Nakama teaches a photodetector for detecting a light intensity for each of lights demultiplexed from an incident light, comprising (Fig.1):

N light-receiving elements (4), these light-receiving elements being arrayed on one dimension. Nakama does not expressly teach the light-receiving elements having structure as claimed in claims 1-4. However, Russell et al. teach the PIN photodiode light-receiving element (see statement of rejection for claims 1-4) having the structure

described in claims 1-4. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use light-receiving elements as taught by Russell in Nakama's device, since it has been held to be within the general skill of a worker in the art to select a well known PIN type photodiode to detect light.

6. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigeru (JP 54-113,384) in view of Russell et al. (US 5,528,071).

Shigeru teaches a photodetector for detecting a light intensity for each of lights demultiplexed from an incident light, comprising (Fig.4):

a first photodetecting means for detecting a barycenter of a light-intensity of each of the demultiplexed lights, the first photodetecting means including n light-receiving elements arrayed in one dimension; and

a second photodetecting means for detecting a barycenter of a light-intensity of each of the demultiplexed lights, the second photodetecting means including n light-receiving elements arrayed in one dimension.


Shigeru does not expressly teach the light-receiving elements having structure as claimed in claims 1-4. However, Russell et al. teach the PIN photodiode light-receiving element (see statement of rejection for claims 1-4) having the structure described in claims 1-4. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use light-receiving elements as taught by Russell in Nakama's device, since it has been held to be within the general skill of a worker in the art to select a well known PIN type photodiode to detect light.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 703-305-9147. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on 703-308-2772. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Donghee Kang
Examiner
Art Unit 2811

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